

REMARKS

Claims 42-53 are pending in the application. By this paper, claims 47 and 51 have been amended. Reconsideration and allowance of claims 42-53 are respectfully requested.

Prior art rejections

Claims 42-46 and 50-53

Claims 42-45 and 50-53 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Japanese patent publication number JP-06-078359 to Tetsuyoshi, et al. ("Tetsuyoshi"). Claim 46 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Tetsuyoshi in view of U.S. patent number 6,366,568 to Bolgiano, et al. ("Bolgiano"). These rejections are respectfully traversed. Independent claims 42, 50 and 53 each recite limitations nowhere shown by Tetsuyoshi.

Tetsuyoshi relates to diversity handoff in a cellular telephone network. As explained, for example, in the Abstract, a mobile station MS7 in area A1 is in radio communication with a plurality of base stations BS1-4. As the mobile station moves from area A1 to area A2, the mobile station remains in radio communication with base stations BS3 and BS4, which serve both areas A1 and A2. Handoff then occurs, as the mobile station ends radio communication with base stations BS1 and BS2 serving area A1 and initiates radio communication with base stations BS5 and BS6 serving area A2. Thus, the mobile station is initially in communication with two or more base stations (A1-4), maintains constant communication with at least one base station (A3-4) while terminating communication with one or more base stations (A1-2), and initiates communication with one or more new base stations (A5-6). During the entire process, radio communication is continuous and unbroken from the mobile station.

In contrast, the invention defined by independent claims 42, 50 and 53 applies to a different situation from the diversity handoff of Tetsuyoshi. For example, claim 42 relates to commencement of communication between a mobile station and a network ("A method for controlling access links..."). According to claim 42, "a plurality of

branches are established between the network and the mobile station upon a call attempt." The plurality of branches are established, "thereby enabling the mobile station to commence communication using the plurality of branches."

In contrast, Tetsuyoshi discloses a handoff method in which communication between the mobile station and the network is already established. The Tetsuyoshi mobile station is processing a call with at least two mobile stations A1-4 and uses at least one of those A3-4 to continue radio communication while handing over communication from A1-2 to A5-6 in a new area A2. Tetsuyoshi does not relate to initiating or commencing communication between a mobile station and a network. Claim 42 is therefore not anticipated by Tetsuyoshi.

With respect to claim 50, this claim relates to a base station controller which establishes a plurality of branches between a network and a mobile station upon a call attempt. Accordingly, claim 50 also relates to initiating or commencing radio communication between the mobile station and the network, which is not a part of Tetsuyoshi. Tetsuyoshi relates to handover, which can only occur during a call, not at commencement of a call. Claim 50 is therefore not anticipated by Tetsuyoshi.

With respect to claim 53, this claim relates to a base station in a network. The base station establishes a plurality of branches with a mobile station "according to an instruction from a base station controller upon a call attempt to or from the mobile station...." Further, the plurality of branches permit communication between the base station and the mobile station "enabling the mobile station to commence communication using the plurality of branches." Accordingly, claim 50 also relates to initiating or commencing radio communication between the mobile station and the network, which is not a part of Tetsuyoshi. Tetsuyoshi relates to handover, which can only occur during a call, not at commencement of a call. Claim 53 is therefore not anticipated by Tetsuyoshi.

Accordingly, it is respectfully submitted that independent claims 42, 50 and 53 are allowable over Tetsuyoshi. Withdrawal of the 35 U.S.C. § 102(b) rejection of these claims is respectfully requested. Claims 43-46 are dependent from claim 42 and are allowable for the same reasons.

Claims 47-49 and 51-52

Claims 47-49 and 51-52 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. patent number 6,366,568 to Bolgiano, et al. ("Bolgiano"). Bolgiano actually relates to a communication network in which "transfer stations" have been placed in the channel between base stations and mobile stations. A base station communicates by TDMA radio link with a "transfer station." The transfer station, in turn, communicates with a mobile station over a CDMA radio link. A plurality (three) of transfer stations are assigned to each mobile station. The forward link from the transfer stations to the mobile station is time slotted, with each transfer station assigned its own time slot for sending forward like data to the mobile station. On the reverse link, all three transfer stations receive transmissions simultaneously from the mobile station.

In contrast, the present invention defined by independent claims 47, 51 and 52 in which base stations and the mobile station communicate directly. Claims 47 and 51 have been amended to clarify the claimed subject matter in this regard. As amended, claim 47 recites "A mobile station characterized in that it establishes a plurality of branches directly between one or more base stations of a network and the mobile station...." Claim 51 has been amended to recite "a request for establishing a plurality of branches between the base station and the mobile station including a main branch and at least one auxiliary branch...." The rejection of claim 52 is respectfully traversed, as this claim recites "a request for establishing a plurality of branches between the mobile station and the corresponding base stations." The invention in accordance with each of claims 47, 51 and 52 involves direct radio communication over a plurality of branches between base stations of the network and the mobile station. There is no intermediary "transfer station" of the type required by Bolgiano, positioned in the channel between the base station and the mobile station.

The presently claimed invention of independent claims 47, 51 and 52 therefore provides a significant advantage over the design of Bolgiano. Bolgiano's network requires two separate radio branches in each of the forward link (to the mobile station) and the reverse link (from the mobile station), including a TDMA branch and a CDMA branch. Each of these branches is susceptible to noise, interference, crosstalk and

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other degradation which can reduce the efficiency of communication. Also, adding the "transfer stations" increases substantially the amount of equipment required in the network and therefore increases the cost and maintenance and upkeep of the network. The present invention defined by claims 47, 51 and 52 provides similar advantages without the added cost and reduced efficiency of Bolgiano.

Accordingly, withdrawal of the 35 U.S.C. § 103 rejection of claims 47, 51 and 52 is respectfully requested. Claims 48 and 49 are dependent from claim 47 and are allowable for the same reasons.

With this response, the application is believed to be in condition for allowance. Should the examiner deem a telephone conference to be of assistance in advancing the application to allowance, the examiner is invited to call the undersigned attorney at the telephone number below.

Respectfully submitted,

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